



GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

MASTERS IN CLINICAL INVESTIGATION PROGRAM

M.S.C.I. THESIS DEFENSE

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Tuesday, March 26, 2019 3:00 p.m.
AS7-2072

Are We Optimizing the Use of Dual Antiplatelet Therapy in Patients Hospitalized with Acute Myocardial Infarction?

Background: Dual antiplatelet therapy (DAPT) is a mainstay treatment for hospital survivors of an acute myocardial infarction (AMI). However, there are extremely limited data on the prescribing patterns of DAPT among patients hospitalized with AMI during recent years.

Objective: To examine decade-long trends (2001-2011) in the use of DAPT versus antiplatelet monotherapy and patient characteristics associated with DAPT use.

Methods: The study population consisted of 2,389 adults hospitalized with an initial AMI at all 11 central Massachusetts medical centers on a biennial basis between 2001 and 2011. DAPT was defined as the discharge use of aspirin plus either clopidogrel or prasugrel. Logistic regression analysis was used to identify patient characteristics associated with DAPT use.

Results: The average age of the study population was 65 years, and 69% of them were discharged on DAPT. The use of DAPT at the time of hospital discharge increased from 49% in 2001 to 74% in 2011; this increasing trend was seen across all age groups, both sexes, types of AMI, and in those who underwent a PCI. After multivariable adjustment, older age and undergoing coronary bypass surgery were associated with a lower odds of receiving DAPT, while being male and undergoing cardiac catheterization and stenting were associated with a higher odds of receiving DAPT.

Conclusions: Between 2001 and 2011, the use of DAPT increased markedly among patients hospitalized with AMI. However, a significant proportion of patients were not discharged on this therapy. Greater awareness is needed to incorporate DAPT into the management of patients with AMI.